

REMARKS

Claims 1-4, 7, 8, 12 and 13 are pending in the present application. Claims 1-4, 7, 8, 12 and 13 stand rejected by the present office action. Claims 7 and 8 were rejected under 35 USC 112, second paragraph as being indefinite. Claims 1-4, 7, 8, 12 and 13 were rejected under 35 USC 103(a) as being unpatentable over Kohama (US 4,660,401) in view of Li et al (US 5,820,999). Claims 1-3, 7, 8, 12 and 13 were rejected under 35 USC 103(a) as being unpatentable over Madsen (US 3,167,985) in view of Li et al (US 5,820,999).

Claims 7-8

Claims 7 and 8 were rejected under 35 USC 112, second paragraph as being indefinite. Claims 7 and 8 have been cancelled.

Claims rejected under 35 USC 103(a) - Kohama/Li

Claims 1-4, 7, 8, 12 and 13 were rejected under 35 USC 103(a) as being unpatentable over Kohama (US 4,660,401) in view of Li et al (US 5,820,999). The office action asserts that Kohama teaches all of the cited limitations except the cutting edge of the moving blade rounded to a radius. The office action asserts that Li shows a movable blade to have a radius; and that it would have been obvious for one skilled in the art to have modified Kohama by making the cutting edge rounded in order to eliminate slivers. The Applicant respectfully traverses these rejections, and requests reconsideration of the amended claims in light of the foregoing arguments.

The Applicant respectfully calls the Examiner's attention to column 2, lines 45-62 of the Li et al reference. The Applicant calls attention to the fact that Li reference states "the use of a zero degree cutting angle has been found to produce an unacceptably high amount of slivers. [for use on aluminum]". The Li reference, therefore utilizes a radiused cutting edge in combination with an angled cutting arrangement (see Figure 2, the cutting blade approaches the blank from an angle). It should be noted that the Li reference is directed towards the same problems as the present invention, namely the elimination of slivers during the trimming of aluminum parts. It is equally significant to note that the Li reference in Table 1 found that a radiused blade when used at a zero degree cutting angle (perpendicular to the blank) is still quoted as producing significant

slivers when used with small clearances (5%). The Li reference addressed this by angling the cutting angle.

The Office action asserts that the support illustrated in Kohama would be obvious to combine with Li to arrive at the present invention. The Applicant respectfully disagrees and traverses this assertion. The Applicant notes that the arguments put forth in the response to the first office action against using Kravets in combination with Li are equally applicable to Kohama. The Applicant notes that Kohama does not support the scrap as asserted by the office action. Kohama, rather, supports a continuously fed blank 129. Therefore, the support of the blank 129 in Kohama is dictated by the fact that additional, non-damaged, parts are intended to be cut out of the blank 129. The Kohama reference does not even address the use of a support 27 to reduce sliver generation. Therefore, it is improper to read a motivation to combine into either of the two references. Most significantly, however, the Applicant notes that Kohama (in addition to the previously utilized Kravets reference) was published more than 10 (ten) years prior to the filing of the Li et al reference. Li was directed to the same issue the present invention. Li itself recognized that a "zero degree cut results in the least amount of normal stress" (col 3, lines 32-34). And yet, Li found it necessary to introduce an increased cutting angle in order to reduce slivers even utilizing a cutting edge with a radius (thereby teaching away from any combination). If Kohama would be obvious to combine with the subject matter to arrive at the present invention, why would not Li utilize it as does the present invention to accomplish minimized slivers, with minimum clearance, and using a zero degree cutting angle. As the Li reference was directed to the same problem, and utilized a rounded cutting radius, and was filed more that a decade after the publication of Kohama, the Applicant submits that the combination is non-obvious and the present claims should be allowed.

Claims rejected under 35 USC 103(a) - Madsen/Li

Claims 1-3, 7, 8, 12 and 13 were rejected under 35 USC 103(a) as being unpatentable over Madsen (US 3,167,985) in view of Li et al (US 5,820,999). The office action asserts that Madsen teaches all of the cited limitations except the cutting edge of the moving blade rounded to a radius. The office action asserts that Li shows a movable blade to have a radius; and that it would have been obvious for one skilled in the art to have modified Madsen by making the cutting edge rounded in order to eliminate slivers. The Applicant respectfully traverses these

rejections, and requests reconsideration of the amended claims in light of the foregoing arguments.

The Applicant respectfully incorporates the above arguments regarding the Li et al reference as put forth in the Kohama combination arguments. The Applicant reasserts that the Li reference, therefore utilizes a radiused cutting edge in combination with an angled cutting arrangement; is directed towards the same problems as the present invention; is still quoted as producing significant slivers when used with small clearances; and addressed the problem by angling the cutting angle.

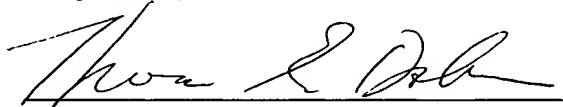
The Office action asserts that the support illustrated in Madsen would be obvious to combine with Li to arrive at the present invention. The Applicant respectfully disagrees and traverses this assertion. The Applicant notes that the arguments put forth in the response to the first office action against using Kravets in combination with Li, as well as those above, are equally applicable to Madsen. The Madsen reference does not even address the use of a support to reduce sliver generation or sliver generation at all. Therefore, it is improper to read a motivation to combine into either of the two references. Most significantly, however, the Applicant notes that Madsen (in by far an even stronger showing that Kravets or Kohama reference) was published more than 30 (thirty) years prior to the filing of the Li et al reference. Li was directed to the same issue the present invention. Li itself recognized that a "zero degree cut results in the least amount of normal stress" (col 3, lines 32-34). And yet, Li found it necessary to introduce an increased cutting angle in order to reduce slivers even utilizing a cutting edge with a radius (thereby teaching away from any combination). If Madsen would be obvious to combine with the subject matter to arrive at the present invention, why would not Li utilize it as does the present invention to accomplish minimized slivers, with minimum clearance, and using a zero degree cutting angle. As the Li reference was directed to the same problem, and utilized a rounded cutting radius, and was filed more that a three decades after the publication of Madsen, the Applicant submits that the combination is non-obvious and the present claims should be allowed.

CONCLUSION

The Applicant would like to thank the Examiner for his assistance. In light of the above remarks, Applicant submits that all objections and rejections are now overcome. The Applicant has added no new material by this Amendment. The Application is now in condition for allowance and expeditious notice thereof is earnestly solicited.

Should the Examiner have any questions or comments that would place the application in better condition for allowance, the Examiner is respectfully requested to call the undersigned attorney.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Thomas Donohue", written over a horizontal line.

Thomas Donohue

Reg. No. 44,660

Artz & Artz, P.C.

28333 Telegraph Road, Suite 250

Southfield, MI 48034

(248) 223-9500

(248) 223-9522 (Fax)

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